

5440-17 Trades and Industry

The holder is authorized to teach one or more trades and industry courses of study in grades 9-12, as specified on the endorsement

In order to qualify for this endorsement, a candidate must demonstrate the following:

Core Knowledge Standards:

Demonstrates knowledge of planning, delivering, and evaluating instruction based upon knowledge of subject matter, integration of Career and Technical Student Organization standards, Vermont's Career and Technical knowledge and skills competencies, and student, community and workforce needs, including industry standards and procedures¹. Specifically, the educator understands:

The role, responsibility, legal, and ethical requirements of the specific trade or industry

Integration and principles of applied academic areas necessary for success in the specific career cluster of the Trades and Industry curriculum

Current and emerging relevant technologies

The career development/planning process and the integration of employability skills into the curriculum

The significant role of partnerships and collaborative relationships with industry, organized labor, parents, agencies, post secondary institutions and the community in delivering the curriculum, and how to form advisory committees

Incorporation of essential entrepreneurial skills into the curriculum

How to foster the development of students' leadership skills through delivery of the curriculum, and incorporation of appropriate career and technical student organization standards into the curriculum

Current local, state, and federal safety regulations

Core Performance Standards:

The educator implements a comprehensive, standards-based curriculum that incorporates industry skill standards and enables students to acquire the knowledge, skills, and attitudes that will prepare them to succeed in the chosen trade or industry. Specifically the educator:

Develops learning opportunities that integrate industry-recognized credentials and incorporate current components of all aspects of industry

Consults with industry advisory committees, colleagues, community, and parents to maximize curricular and instructional resources, and develops work-based learning experiences

Plans, organizes, and manages laboratories/technical facilities for instruction so that activities are carried out in accordance with state and national safety guidelines and in compliance with all local, state and federal regulatory codes governing the trade or industry

Fosters the development of students' leadership, teamwork, and effective communication skills, and teaches department in a manner appropriate to the industry

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Advises students in the career planning process and teaches foundation employability skills as indicated in the program core competencies developed by industry and education

Prepares students for third-party assessments

Additional Requirements:

A high school diploma or the equivalent

An industry-recognized credential offered in the program of instruction

A total of six or more years of recent trade experience leading to a broad base of knowledge and skills in the pathway/concentration area of instruction;

(In order to teach in additional pathways within the same career cluster, the instructor will have 2 years of work experience in the additional pathway(s).)

Successful completion of the Mentorship Program for Technical Professional and Trades and Industry educators

Pathway/Concentration Areas:

1. Arts, A/V Technology and Communications

- a. Performing Arts
 - 1. Technical Dance
 - 2. Technical Theater
 - 3. Technical Music
- b. Visual Arts
 - 1. Graphics Design and Production
 - multimedia
 - printing
 - 2. Stone Arts
- c. Audio And Video Technologies
 - 1. Audio and Video Technical Support
 - Computer Visualization and Animation
- d. Journalism and Broadcasting
 - 1. Professional Writing
 - 2. Radio/TV Broadcasting
- e. Printing Technologies

2. Architecture and Commercial Construction

- a. Design-Pre-Construction
 - 1. Drafting/CAD
- b. Construction
 - 1. Carpentry
 - 2. Millwork, and Cabinetmaking
 - 3. Masonry
 - 4. Plumbing and Heating
 - 5. Industrial Electricity
 - 6. Residential Wiring
 - 7. Heating, Air Conditioning, Refrigeration

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- c. Maintenance Operations
 - 1. Industrial Maintenance
 - 2. Plumbing and Heating
 - 3. Industrial Electricity
 - 4. Residential Wiring
 - 5. Heating, Air conditioning, Refrigeration

3. Hospitality and Tourism

- a. Food and Beverage Management/Culinary Arts
- b. Lodging Management
- c. Travel, Tourism
- d. Recreation and Attractions

4. Information Technology

- a. Information Technology Services
 - Computer Technical Support
 - Data Systems Designers
- b. Network Design/Administration
- c. Programming and Software Development
- d. Interactive Media

5. Law, Public Safety, and Security

- a. Emergency and Fire Management Services
- b. Law Enforcement
- c. Legal Services

6. Manufacturing

Production

- welding
- metal working

7. Scientific Research Engineering & Mathematics

Engineering Technology

- Electronics Occupations
- Electronics Communications

8. Transportation, Distribution and Logistics

Mobile Equipment Maintenance

- Automotive Mechanics
- Collision Repair
- Aircraft Mechanics
- Truck/Diesel Operations & Repair
- Heavy Equipment Operator

9. Personal Care Services

- Cosmetology
- Massage therapy

¹. *States' Career Cluster Initiative*, (2002, National Association of State Directors for Career and Technical Education Consortium)

². *Ibid*